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UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

A STUDY OF BUTTER CHARACTERISTICS AND GRADING RESULTS  
BASED ON U. S. DEPARTMENT OF AGRICULTURE GRADINGS FOR 1957

The data for this study was compiled from a sampling of fresh bulk (salted) butter graded by the Inspection and Grading Branch, Dairy Division, Agricultural Marketing Service, U. S. Department of Agriculture, during 1957. This data is exclusive of the regradings of Government-owned inventories.

The certificates from which the following data were compiled covered butter graded at grading stations, terminal markets, and shipping points in all principal butter producing states. To obtain a reasonably representative cross section of seasonal quality variations the data were recorded from certificates issued in February, May, August, and November, 1957. Each churning was recorded showing the poundage, flavor characteristics, defects in body, color and salt and final U. S. Grade. A total of 188,299,067 pounds of butter was recorded during those months.

The butter graded by the Department and tabulated in this study is not entirely representative of the quality of all the butter produced in this country. The main reason for this is that a large percentage of the butter submitted for grading by the Department is in the higher quality range.

The summarized information is shown in table form, according to grades.

In Table I you will note that the amount of U. S. Grade AA or U. S. 93 Score butter was 108,348,687 pounds or 57.54 percent of all the butter graded during the months tabulated. About 97 percent of the butter in this grade was given no flavor comment, indicating a fine highly pleasing flavor. Only 3.14 percent was classified as possessing a slight feed flavor or a definite cooked (fine) flavor.

Body defects were noted in 2.78 percent of the butter classified as U. S. Grade AA. Slight leaky was the most prevalent body defect encountered in the butter so classified. This amounted to 1.73 percent, and the highest occurrence was noted in the month of May with 2.15 percent. The body defect next in importance was slight sticky with 0.68 percent, followed by slight short with almost 0.2 percent. Sticky butter was more prevalent in November than in any other period.

No defects were encountered in the other two workmanship factors, namely, color and salt, in the butter classified as U. S. Grade AA.

Also shown in Table I is the amount of butter given a "AA" flavor rating but down-graded because of workmanship defects. While most of this butter was down-graded to U. S. Grade A, a small amount was lowered to U. S. Grade B, because of excess color defect. About 0.3 percent of the butter having a "AA" flavor rating was down-graded to U. S. Grade A because of a definite leaky condition.



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Table II shows the amount of U. S. Grade A or U. S. 92 Score butter, with corresponding comments and percentages for each. U. S. Grade A was assigned to 51,834,141 pounds or 27.53 percent of all butter graded. Of this quantity, 68.5 percent was pleasing and desirable in flavor without particular comment. Of the flavor comments noted for U. S. Grade A butter, slight coarse acid was most frequently noted, representing about 16 percent of the butter so graded. Slight bitter was next with 9.29 percent, followed by definite feed with 4.39 percent.

Workmanship defects were encountered in 6.96 percent of the butter classified as U. S. Grade A. Slight leaky accounted for 3.49 percent, with May gradings showing as high as 4.07 percent. A slight sticky condition was noted in 1.8 percent of all the butter classified as U. S. Grade A, with February showing 4.42 percent and November 3.07 percent. A slight short condition was noted in 0.53 percent of the butter scored U. S. Grade A, with November accounting for 1.07 percent.

No color defects were present in butter classified as U. S. Grade A and only 0.07 percent was noted as having a slight sharp salt condition.

Table II also shows the amount of butter with a flavor rating of "A" down-graded to U. S. Grade B and U. S. Grade C because of workmanship defects. About 0.75 percent of the butter having an "A" flavor rating was down-graded to U. S. Grade B because of a definite leaky condition. Leaky and color defects were responsible for down-grading to U. S. Grade C.

Table III shows that 23,817,614 pounds, or 12.65 percent of the total butter tabulated was U. S. Grade B or U. S. 90 Score. The most striking flavor characteristics noted in this category were: definite old cream, definite coarse acid, slight utensil, slight neutralizer and slight whey, representing 56.5, 17.1, 8.6, 6.8 and 5.2 percent, respectively. You will note that 307,605 pounds or 1.29 percent was without flavor comment. This represents the amount of butter with a "AA" or "A" flavor rating which was down-graded to U. S. Grade B because of excess workmanship defects, previously referred to in Tables I and II.

About 6.5 percent of the butter graded U. S. Grade B showed workmanship defects. Slight leaky, representing 2.89 percent, was the most prevalent workmanship defect. Its occurrence was more uniform in this grade in each of the months, although in November it was almost one percent lower. A slight sticky condition was noted in 0.94 percent of the butter classified as U. S. Grade B, with February showing 1.81 percent.

Table III also shows that 480,045 pounds or 2.02 percent of the butter possessing a "B" flavor rating was down-graded to U. S. Grade C because of various workmanship defects. A definite leaky condition accounted for 1.39 and definite gummy for 0.33 percent.

Table IV shows that 3,880,401 pounds or 2.06 percent of all the butter graded was classified as U. S. Grade C. Definite stale flavor was the most predominant, accounting for 44.12 percent, with definite whey, definite utensil, definite neutralizer, definite weed and slight sour, comprising 14.1, 7.55, 6.43, 3.2 and 3.2 percent, respectively.



About 26.5 percent of the butter classified as U. S. Grade C possessed workmanship defects, which were mainly body defects. Six percent of this butter was found to possess a slight or definite leaky condition, 3.76 percent slight spongy or weak, 2.48 percent slight and definite mealy and 1.15 percent slight and definite sticky.

Color defects amounted to 0.11 percent consisting of slight mottled and slight wavy, and salt defects constituted 0.12 percent, including slight gritty salt and slight sharp salt.

Table V shows 418,224 pounds or 0.22 percent not qualifying for a U. S. Grade and the reason for its classification. Pronounced stale and definite metallic accounted for most of the butter classified as Below Grade.

Table VI is a summary of the poundage and percentages for each grade for each month tabulated and the totals for the year. You will note that 9,258,762 pounds or 4.92 percent of all the butter included in the study was criticized for workmanship defects.

It is important to note that there was slightly over 1.5 million pounds of butter or 0.81 percent lowered one grade or more because of excess workmanship defects.

The data in this study was compiled for the Butter Committee, American Dairy Science Association by the Standardization and Program Development Branch, Dairy Division.



Table I

## FRESH BUTTER GRADED BY USDA -- MONTH AND YEAR 1957

U. S. Grade AA or U. S. 93 Score

Classification	February		May		August		November		Total for the Year	
	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
<u>FLAVOR</u>										
No Comment	26,927,731	95.67	37,660,746	96.62	19,155,204	97.84	21,200,155	97.93	104,943,836	96.86
Slight Feed	1,207,422	4.29	1,310,721	3.36	418,636	2.14	445,548	2.06	3,382,327	3.12
Definite Cooked (fine)	11,004	.04	5,120	.01	4,932	.02	2,368	.01	22,524	.02
Total	28,146,157	100.00	38,976,587	100.00	19,577,872	100.00	21,648,071	100.00	108,348,687	100.00
Percent AA of all butter graded by month and year		64.53		54.37		50.32		63.51		57.54
<u>Body</u>										
Slight Crumbly	10,368	.037	31,080	.080	--	--	75,290	.348	116,738	.108
Slight Leaky	422,409	1.501	837,870	2.150	319,282	1.631	299,419	1.383	1,878,980	1.734
Slight Short	14,100	.050	74,272	.191	72,540	.371	52,440	.242	213,352	.197
Slight Spongy-Weak	47,936	.170	--	--	--	--	--	--	47,936	.044
Slight Sticky	198,633	.706	65,844	.169	87,896	.449	389,584	1.800	741,957	.685
Slight Gummy	--	--	4,800	.012	--	--	4,828	.022	9,628	.009
Slight Nealy	--	--	--	--	3,844	.020	--	--	3,844	.004
<u>Color</u>										
Slight	--	--	--	--	--	--	--	--	--	--
Salt	--	--	--	--	--	--	--	--	--	--
Total workmanship defects	693,446	2.464	1,013,866	2.602	483,562	2.471	821,561	3.795	3,012,435	2.781
Percent workmanship defects of all butter graded by month and year		1.590		1.414		1.243		2.410		1.600
AA Flavor Down Graded to U. S. Grade A Due to Excess Workmanship Defects										
<u>Body</u>										
Slight Sticky-Leaky	23,320	.083	--	--	--	--	--	--	23,320	.022
Definite Leaky	72,764	.259	201,241	.516	76,308	.390	7,214	.033	357,527	.330
Definite Gummy	--	--	--	--	62,460	.319	--	--	62,460	.058
Definite Sticky	--	--	--	--	7,388	.038	13,248	.061	20,636	.019
Definite Nealy	--	--	--	--	--	--	800	.004	800	.001
<u>Color</u>										
Slight Color Specks	900	.003	4,544	.012	--	--	--	--	5,444	.005
Definite Navy	--	--	2,304	.006	--	--	--	--	2,304	.002
<u>Salt</u>										
Definite Sharp Salt	64,320	.229	--	--	--	--	--	--	64,320	.059
Total	161,304	.574	208,089	.534	146,156	.747	21,262	.098	536,811	.496
AA Flavor Down Graded to U. S. Grade B Due to Excess Workmanship Defects										
<u>Body</u>										
Slight	--	--	--	--	--	--	--	--	--	--
<u>Color</u>										
Definite Mottled	--	--	2,304	.006	--	--	--	--	2,304	.002
<u>Salt</u>										
Slight	--	--	--	--	--	--	--	--	--	--
Total	--	--	2,304	.006	--	--	--	--	2,304	.002

Prepared by: Standardization and Program Development Branch  
Dairy Division, AMS, USDA  
Washington, D. C. -- May, 1958



Classification	February		May		August		November		Total for the Year	
	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
<b>Flavor</b>										
*No Comment	8,392,313	72.78	14,216,222	66.34	7,477,138	69.50	5,437,923	67.01	35,523,596	68.54
**Slight Feed	960	.01	60,924	.28	8,568	1.08	8,568	.07	76,324	.15
Definite Feed	362,938	3.15	1,605,600	7.49	124,168	1.15	184,932	2.27	2,277,226	4.39
Definite Cooked (coarse)	7,872	.07	10,496	.05	67,668	.63	18,560	.23	104,636	.20
Slight Acid	89,560	.78	132,427	.61	39,148	.36	74,242	.92	335,347	.65
Slight Bitter	1,661,664	14.41	1,845,678	8.61	636,739	5.92	672,662	8.29	4,816,663	9.29
Slight Coarse Acid	956,541	8.29	3,297,663	15.39	2,347,301	21.82	1,672,698	20.62	8,274,363	15.96
Slight Smothered	56,496	.51	261,696	1.22	57,540	.54	1,964	.02	379,678	.73
Slight Flat	--	--	--	--	--	--	46,688	.57	46,688	.09
Total	11,530,284	100.00	21,430,868	100.00	10,798,282	100.00	8,114,707	100.00	51,834,141	100.00
Percent A of all butter graded by month and year		26.43		29.90		27.65		23.81		27.53
<b>Body</b>										
Slight Leaky	280,987	2.437	872,278	4.070	443,588	3.844	241,246	2.973	1,808,099	3.488
Slight Nealy	4,356	.038	4,224	.020	1,504	.015	--	--	10,144	.020
Slight Short	--	--	99,776	.466	85,816	.798	86,912	1.071	272,504	.526
Slight Spongy-Weak	--	--	1,020	.005	1,380	.013	--	--	2,400	.005
Slight Sticky	509,340	4.437	178,721	.834	--	--	249,386	3.073	937,447	1.809
Color	--	--	--	--	--	--	--	--	--	--
Salt	--	--	--	--	--	--	--	--	--	--
Slight Sharp Salt	--	--	34,200	.160	2,304	.021	--	--	36,504	.070
Total	794,683	6.892	1,190,219	5.555	504,692	4.691	577,544	7.117	3,067,098	5.918
AA flavor down-graded to Grade A	161,304	1.40	208,089	.97	146,156	1.36	21,262	.26	536,811	1.04
Total workmanship defects	955,987	8.292	1,398,308	6.525	650,808	6.051	598,806	7.377	3,603,909	6.958
Percent workmanship defects of all butter graded by month and year		2.192		1.951		1.673		1.757		1.914
A Flavor Down Graded to U. S. Grade B Due to Excess Workmanship Defects										
<b>Body</b>										
Definite Leaky	41,315	.358	140,137	.654	175,438	1.631	38,820	.478	395,710	.763
Definite Crumbly	1,105	.010	--	--	--	--	--	--	1,105	.002
Slight Leaky-Sticky	29,692	.258	1,020	.005	--	--	--	--	30,712	.059
Definite Nealy	--	--	4,376	.020	4,376	.041	--	--	8,752	.017
Slight Leaky-Crumbly	2,312	.020	--	--	--	--	--	--	2,312	.004
Definite Spongy-Weak	--	--	--	--	2,100	.020	--	--	2,100	.004
Definite Sticky	14,404	.125	--	--	2,940	.027	--	--	17,344	.033
Slight Ragged Boring	--	--	4,224	.020	--	--	--	--	5,952	.011
Definite Gummy	--	--	12,000	.056	--	--	1,728	.021	12,000	.023
Color	--	--	--	--	--	--	--	--	--	--
Slight Mottled	--	--	1,071	.005	4,494	.042	1,600	.020	7,165	.014
Slight Color Specks	4,843	.042	5,952	.028	--	--	--	--	10,795	.021
Salt	--	--	--	--	--	--	--	--	--	--
Slight Gritty Salt	--	--	--	--	1,140	.011	--	--	1,140	.002
Total	93,671	0.813	168,780	0.788	190,488	1.771	42,148	0.519	495,087	0.953
A Flavor Down Graded to U. S. Grade C Due to Excess Workmanship Defects										
<b>Body</b>										
Definite Leaky-Weak	2,448	.021	--	--	704	.007	--	--	3,152	.006
Definite Leaky-Sticky	--	--	--	--	--	--	768	.009	768	.001
Definite Leaky-Slight Mottled	--	--	1,224	.006	780	.007	--	--	2,004	.004
Definite Leaky-Color Specks	--	--	3,008	.014	--	--	--	--	3,008	.006
Color	--	--	--	--	2,929	.027	--	--	2,929	.006
Definite Mottled	--	--	--	--	780	.007	--	--	2,004	.004
Slight Mottled-Definite Leaky	--	--	1,224	.006	--	--	--	--	3,008	.006
Definite Color Specks-Leaky	--	--	3,008	.014	--	--	--	--	--	--
***	2,448	0.021	4,232	0.020	4,413	0.041	768	0.009	11,861	0.023

\*Includes butter with AA flavor rating down-graded because of excess workmanship defects.

\*\*Butter of this flavor rating down-graded because of excess workmanship defects.

\*\*\*Body and color combination defects included only once in total

Prepared by: Standardization and Program Development Branch  
Dairy Division, AMS, USDA  
Washington, D. C. -- May, 1958





Table III

## FRESH BUTTER GRADED BY USDA -- MONTH AND YEAR 1957

U. S. Grade B or U. S. 90 Score

Classification	February		May		August		November		Total for the Year	
	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
<u>Flavor</u>										
*No Comment (A or AA)	63,491	1.72	98,236	1.00	122,982	1.89	22,896	.60	307,605	1.29
*Slight Feed (AA)	2,992	.08	--	--	--	--	--	--	2,992	.01
*Definite Feed (A)	--	--	4,032	.04	--	--	--	--	4,032	.01
*Slight Aged (A)	--	--	25,500	.26	--	--	--	--	25,500	.11
Definite Aged	2,496	.07	1,152	.01	--	--	64	.00	3,712	.01
*Slight Bitter (A)	19,832	.54	13,252	.13	4,968	.08	4,888	.13	42,840	.18
Definite Bitter	99,773	2.70	28,684	.29	27,032	.42	43,308	1.14	198,997	.84
*Slight Coarse Acid (A)	4,988	.14	30,064	.31	62,578	.96	14,424	.38	112,054	.47
Definite Coarse Acid	689,967	18.64	1,519,081	15.47	1,253,426	19.27	614,723	16.22	4,077,197	17.12
Slight Neutralizer	83,396	2.25	915,900	9.32	510,017	7.84	123,674	3.26	1,632,967	6.86
Slight Scorching	8,622	.23	36,340	.37	12,032	.18	2,838	.08	59,832	.25
Slight Ureasil	433,153	11.70	977,476	9.95	321,280	4.94	318,835	8.41	2,050,744	8.61
Definite Old Cream	285,740	7.64	501,616	5.11	282,332	4.34	168,717	4.45	1,235,405	5.19
*Slight Smothered (A)	1,992,674	53.83	5,365,645	54.63	3,698,971	56.87	2,394,830	63.19	13,452,120	56.48
Definite Smothered	2,368	.06	--	--	--	--	--	--	2,368	.01
Slight Malt	10,824	.29	19,304	.20	35,652	.55	--	--	65,760	.28
Definite Malt	4,248	.11	102,700	1.05	160,720	2.47	8,124	.22	275,792	1.16
Slight Weedy	--	--	182,457	1.86	12,356	.19	72,844	1.92	287,657	1.12
Total	3,701,564	100.00	9,821,639	100.00	6,504,306	100.00	3,790,105	100.00	23,817,614	100.00
Percent B of all butter graded by month and year		8.49		13.71		16.72		11.12		12.649
<u>Body</u>										
Slight Leaky	122,192	3.301	290,804	2.961	196,418	3.020	79,875	2.107	669,289	2.894
Slight Mealy	3,312	.089	23,624	.241	30,584	.470	5,760	.153	63,300	.266
Slight Short	--	--	--	--	--	--	33,946	.896	33,946	.143
Slight Spongy-Weak	--	--	--	--	51,292	.789	13,560	.358	64,852	.272
Slight Sticky	66,874	1.807	88,164	.898	20,088	.309	48,596	1.282	223,722	.932
<u>Color</u>										
Slight Color Specks	64	.002	--	--	--	--	--	--	64	.000
<u>Salt</u>										
Total	192,442	5.199	402,592	4.100	298,382	4.588	181,757	4.796	1,075,173	4.514
AA and A flavor down-graded to Grade B	93,671	2.53	171,084	1.74	190,488	2.93	42,148	1.11	497,391	2.094
Total workmanship defects	286,113	7.729	573,676	5.840	448,870	7.518	223,905	5.906	1,572,564	6.608
Percent workmanship defects of all butter graded by month and year		0.656		0.801		1.257		0.657		0.835
<u>B Flavor Down Graded to U. S. Grade C Due to Excess Workmanship Defects</u>										
<u>Body</u>										
Definite Leaky	13,782	.372	159,850	1.688	121,419	1.867	36,689	.968	331,740	1.393
Definite Mealy	--	.019	4,672	.048	1,792	.028	--	.027	8,204	.034
Definite Gummy	--	.122	12,000	.122	66,387	1.021	1,040	.027	78,387	.329
Definite Sticky	6,034	.163	512	.005	6,136	.094	3,378	.089	16,060	.067
Definite Spongy-Weak	--	.059	2,038	.021	704	.011	--	--	704	.003
Slight Leaky-Mealy	2,176	.059	--	--	--	--	--	--	4,214	.018
Slight Leaky-Spongy-Weak	--	--	--	--	1,800	.028	--	--	1,800	.008
Slight Grainy	--	--	--	--	2,304	.035	--	--	2,304	.010
<u>Color</u>										
Slight Mottled	--	--	--	--	--	--	1,600	.042	1,600	.007
Definite Mottled	1,024	.028	--	--	1,344	.021	--	--	2,368	.010
Slight Streaked	--	--	--	--	760	.012	--	--	760	.003
<u>Salt</u>										
Slight Gritty Salt	--	--	31,424	.320	--	--	--	--	31,424	.132
Definite Sharp Salt	--	--	--	--	480	.007	--	--	480	.002
Total	23,716	0.641	210,496	2.144	203,126	3.124	42,707	1.126	480,045	2.016

\*Butter of this flavor rating down-graded because of excess workmanship defects.

Prepared by: Standardization and Program Development Branch  
Dairy Division, AMS, USDA  
Washington, D. C. -- May, 1958



Table IV

## FRESH BUTTER GRADED BY USDA -- MONTH AND YEAR 1957

U. S. Grade C or U. S. 89 Score

Classification	February		May		August		November		Total for the Year	
	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
<b>Flavor</b>										
*No Comment (A)	--	--	1,224	.10	2,929	.15	768	.17	4,921	.13
*Slight Aged (A)	--	--	3,008	.24	--	--	--	--	3,008	.08
*Slight Bitter (B)	2,448	1.10	--	--	704	.03	--	--	3,152	.08
*Definite Bitter (B)	--	--	--	--	2,240	.11	--	--	2,240	.06
*Slight Coarse Acid (A)	--	--	--	--	780	.04	--	--	780	.02
*Definite Coarse Acid (B)	8,078	3.62	28,884	2.26	30,984	1.60	2,944	.67	70,890	1.83
*Slight Neutralizer (B)	--	--	17,960	1.41	4,074	.21	3,000	.68	25,034	.64
*Definite Neutralizer (B)	7,444	3.34	90,053	7.04	130,794	6.73	21,312	4.88	249,603	6.43
*Slight Scorched (B)	--	--	600	.05	--	--	696	.20	1,496	.04
*Definite Scorched (B)	--	--	1,840	.14	5,376	.28	--	--	7,216	.18
*Slight Utensil (B)	448	.20	15,232	1.19	8,840	.46	5,545	1.27	30,065	.77
*Definite Utensil (B)	50,403	22.59	98,648	7.72	117,273	6.04	26,510	6.07	292,834	7.55
*Slight Whey (B)	--	--	15,164	1.19	78,515	4.04	7,904	1.81	101,583	2.62
*Definite Whey (B)	25,592	11.47	180,305	14.11	250,846	12.92	91,814	21.02	548,557	14.14
*Definite Old Cream (B)	15,190	6.81	130,460	10.21	78,217	4.03	22,418	5.13	246,285	6.35
*Slight Metallic	17,262	7.74	58,062	4.54	15,859	.82	12,427	2.85	103,610	2.67
*Definite Stale	83,160	37.27	424,617	33.22	1,066,820	54.93	137,428	31.46	1,712,025	44.12
*Slight Head (B)	--	--	1,472	.12	--	--	--	--	1,472	.04
*Definite Head (B)	4,096	1.84	100,372	7.85	4,220	.21	15,421	3.53	124,109	3.20
*Slight Onion	--	--	12,456	.97	--	--	13,352	3.06	25,808	.66
*Slight Sour	1,664	.74	44,236	3.46	45,424	2.34	32,704	7.49	124,028	3.20
*Slight Fruity (B)	5,687	2.55	9,242	.72	42,496	2.19	6,541	1.50	63,966	1.65
*Slight Musty (B)	--	--	704	.05	256	.01	--	--	960	.02
*Definite Musty (B)	--	--	12,088	.95	48,997	2.52	--	--	61,085	1.57
*Slight Yeasty	--	--	1,216	.09	--	--	--	--	1,216	.03
*Slight Oily	1,640	.73	1,056	.08	1,792	.09	7,822	1.79	12,310	.32
*Slight Barmy	--	--	28,000	2.19	--	--	--	--	28,000	.72
*Slight Cheesy	--	--	1,280	.10	4,812	.25	28,036	6.42	34,128	.88
<b>Total</b>	223,112	100.00	1,278,199	100.00	1,942,248	100.00	436,842	100.00	3,880,401	100.00
<b>Percent C of all butter graded by month and year</b>										
		0.512		1.783		4.992		1.282		2.061
<b>Body</b>										
*Slight Leaky	6,379	2.859	32,883	2.573	36,814	1.895	32,909	7.533	108,985	2.809
*Definite Leaky	2,176	.975	33,645	2.632	71,817	3.698	17,568	4.022	125,206	3.227
*Slight Mealy	--	--	3,888	.304	32,347	1.665	16,068	3.678	52,303	1.348
*Definite Mealy	2,160	.968	9,000	.704	32,868	1.692	--	--	44,028	1.135
*Slight Sticky	9,280	4.159	8,527	.667	5,969	.307	6,370	1.458	30,146	.777
*Definite Sticky	--	--	512	.040	2,562	.132	11,418	2.614	14,492	.373
*Slight Spongy-Meak	--	--	--	--	129,413	6.663	16,620	3.805	146,033	3.763
*Slight Grainy	--	--	--	--	2,304	.119	--	--	2,304	.059
*Definite Short	--	--	--	--	--	--	2,832	.648	2,832	.073
<b>Color</b>										
*Slight Mottled	--	--	--	--	1,600	.082	1,235	.283	2,835	.073
*Slight Hazy	--	--	--	--	--	--	1,472	.337	1,472	.038
<b>Salt</b>										
*Slight Gritty Salt	--	--	3,456	.270	--	--	--	--	3,456	.089
*Slight Sharp Salt	--	--	--	--	1,216	.063	--	--	1,216	.031
<b>Total</b>	19,995	8.961	91,911	7.190	316,910	16.316	106,492	24.378	535,308	13.795
A and B flavor down-graded to Grade C	26,164	11.73	214,728	16.80	207,539	31.89	43,475	7.26	491,906	12.677
<b>Total workmanship defects</b>	46,159	20.691	306,639	23.990	524,449	47.206	149,967	34.638	1,027,214	26.472
Percent workmanship defects of all butter graded by month and year		0.106		0.428		1.348		0.440		0.546

\*Butter of this flavor rating down-graded because of excess workmanship defects.

Prepared by: Standardization and Program Development Branch  
 Dairy Division, AMS, USDA  
 Washington, D. C. -- May, 1958



Table V

## FRESH BUTTER GRADED BY USDA -- MONTH AND YEAR 1957

Below U. S. Grade

Classification	February		May		August		November		Total for the Year	
	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent	Pounds	Percent
<u>Flavor</u>										
Definite Metallic	8,580	48.79	18,874	10.51	16,136	13.12	5,888	6.00	49,478	11.83
Pronounced Metallic	--	--	1,440	.80	--	--	--	--	1,440	.34
Pronounced Stale	5,310	30.19	132,965	74.04	92,903	75.96	81,128	82.74	312,326	74.68
Pronounced Whey	--	--	--	--	1,080	.86	--	--	1,080	.26
Definite Sour	--	--	5,656	3.15	300	.24	--	--	5,956	1.42
Pronounced Sour	--	--	--	--	5,824	4.74	--	--	5,824	1.39
Definite Cheesy	1,008	5.73	5,664	3.15	--	--	1,600	1.63	6,272	1.98
Definite Fruity	--	--	2,860	1.59	--	--	--	--	4,050	.97
Pronounced Musty	--	--	3,000	1.67	1,190	.97	--	--	3,000	.72
Pronounced Weed	--	--	--	--	--	--	--	--	180	.04
Definite Onion	--	--	--	--	180	.14	--	--	2,772	.66
Pronounced Onion	--	--	--	--	2,772	2.25	1,320	1.35	1,320	.32
Definite Barny	--	--	1,680	.93	--	--	--	--	1,680	.40
Definite Obnoxious Weed	--	--	--	--	--	--	2,176	2.22	2,176	.52
Pronounced Woody	--	--	--	--	--	--	5,940	6.06	5,940	1.42
Rancid	--	--	576	.32	2,048	1.67	--	--	2,624	.63
Chemical	1,280	7.28	6,690	3.84	528	.43	--	--	8,698	2.08
Sand and Rust	1,408	8.01	--	--	--	--	--	--	1,408	.34
Total	17,586	100.00	179,625	100.00	122,961	100.00	98,052	100.00	418,224	100.00
Percent below grade of all butter graded by month and year		0.040		0.251		0.316		0.288		0.222
<u>Body</u>										
Slight Leaky	--	--	2,944	1.639	2,707	2.202	2,040	2.089	7,691	1.839
Definite Leaky	--	--	8,706	4.847	6,347	5.162	5,139	5.241	20,192	4.828
Slight Mealy	--	--	--	--	1,084	.882	--	--	1,084	.259
Definite Mealy	--	--	--	--	700	.569	--	--	700	.167
Slight Spongy-Weak	--	--	--	--	1,320	1.074	1,440	1.469	2,760	.660
Slight Sticky	1,008	5.732	--	--	6,599	5.359	--	--	7,597	1.816
Slight Ragged Boring	--	--	--	--	--	--	2,496	2.546	2,496	.597
<u>Color</u>										
Definite Mottled	--	--	--	--	120	.098	--	--	120	.029
<u>Salt</u>										
Total workmanship defects	1,008	5.732	11,650	6.486	18,867	15.346	11,115	11.345	42,640	10.166
Percent workmanship defects of all butter graded by month and year		0.002		0.01		0.048		0.033		0.023

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Dairy Division, AMS, USDA  
Washington, D. C. -- May, 1958





Table VI

## SUMMARY

FRESH BUTTER BY GRADE, MONTH AND YEAR -- 1957

Classification	February			May			August			November			Total for the Year		
	Pounds	Percent all butter graded	Percent all butter graded	Pounds	Percent all butter graded	Percent all butter graded	Pounds	Percent all butter graded	Percent all butter graded	Pounds	Percent all butter graded	Percent all butter graded	Pounds	Percent all butter graded	Percent all butter graded
U. S. Grade AA	28,146,157	64.53	54.37	38,976,587	54.37	50.32	19,577,872	50.32	63.51	21,648,071	63.51	108,348,687	57.54		
U. S. Grade A	11,530,284	26.43	29.90	21,430,868	29.90	27.65	10,758,282	27.65	23.81	8,114,707	23.81	51,834,141	27.53		
U. S. Grade B	3,701,564	8.49	13.71	9,821,639	13.71	16.72	6,504,306	16.72	11.12	3,790,105	11.12	23,817,614	12.65		
U. S. Grade C	223,112	0.512	1.783	1,278,199	1.783	4.99	1,942,248	4.99	1.282	436,842	1.282	3,880,401	2.06		
Below U. S. Grade	17,586	0.040	0.251	179,625	0.251	0.316	122,961	0.316	0.288	98,052	0.288	418,224	.22		
Total	43,618,703	100.00	100.00	71,686,918	100.00	100.00	38,905,669	100.00	100.00	34,087,777	100.00	188,299,067	100.00		
Percent graded by months		23.17	38.07			20.66			18.10				100.00		

## WORKMANSHIP DEFECTS

Grade Classification	Total Pounds	Percent
U. S. Grade AA	108,348,687	2.8
U. S. Grade A	51,834,141	6.9
U. S. Grade B	23,817,614	6.6
U. S. Grade C	3,880,401	26.5
Below U. S. Grade	418,224	10.2

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